AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1.   (Original) A computerized method for designing a progressive die used in the manufacturing of a part formed from sheet metal, comprising:

receiving, at a computer, information regarding one or more features of the part;

determining, by the computer, a blank layout for the part based on the features of the part and the number of parts desired;

determining, by the computer, one or more details of a strip for the blank layout;

determining, by the computer, information regarding a die base based on the details of the strip, the die base having a plurality of die plates;

determining, by the computer, information regarding one or more inserts for the die plates based on one or more operations of one or more processes needed to form the features in the part; and

generating, by the computer, one or more outputs associated with the progressive die.

2.   (Original) The computerized method of Claim 1, further comprising:

determining, by the computer, the one or more processes needed to form the features in the part;

determining, by the computer, the one or more operations associated with each process; and

receiving, at the computer, one or more parameters associated with each operation.

3.   (Original) The computerized method of Claim 1, further comprising:

receiving, at the computer, information regarding one or more scrap profiles for the strip;

receiving, at the computer, a sequence of the operations of the processes;

simulating, by the computer, the operations of each process on the strip;

notifying, via a visual display unit, a user of one or more results of the simulating step; and

receiving one or more modifications of at least one parameter of at least one operation.

4.   (Original) The computerized method of Claim 1, further comprising:

receiving, at the computer, one or more parameters associated with one or more configurable items for the die plates.

5.   (Original) The computerized method of Claim 1, further comprising:

receiving, at the computer, one or more parameters associated with the inserts;

determining, by the computer, one or more relief cavities for the die plates; and

generating, by the computer, one or more pockets for the die plates.

6.   (Original) The computerized method of Claim 1, further comprising:

determining, by the computer, a press force associated with each operation; and

determining, by the computer, a press force center for the progressive die based on the press force associated with each operation.

7.   (Original) The computerized method of Claim 1, wherein determining, by the computer, one or more details of the strip for the blank layout comprises receiving, at the computer, a feed direction of the strip, a width of the strip, and a length of the strip based on the number of stations for the progressive die.

8.   (Original) The computerized method of Claim 1, wherein generating, by the computer, one or more outputs associated with the progressive die comprises generating a printout selected from the group consisting of at least one assembly drawing, a bill of material, and a hole table.

9.   (Original) A computerized method for designing a progressive die used in the manufacturing of a part formed from sheet metal, comprising:

receiving, at a computer, information regarding one or more features of the part;

determining, by the computer, one or more processes needed to form the features in the part;

determining, by the computer, one or more operations associated with each process;

receiving, at the computer, one or more parameters associated with each operation;

determining, by the computer, a blank layout for the part based on the features of the part and the number of parts desired;

determining, by the computer, one or more details of a strip for the blank layout;

receiving, at the computer, information regarding one or more scrap profiles for the strip;

receiving, at the computer, a sequence of the operations of the processes;

simulating, by the computer, the operations of the processes on the strip;

determining, by the computer, information regarding a die base based on the details of the strip, the die base having a plurality of die plates;

receiving, at the computer, one or more parameters associated with one or more configurable items for the die plates;

determining, by the computer, information regarding one or more inserts for the die plates based on the operations of the processes needed to form the features in the part;

receiving, at the computer, one or more parameters associated with the inserts;

determining, by the computer, one or more relief cavities for the die plates;

generating, by the computer, one or more pockets for the die plates; and

generating, by the computer, one or more outputs associated with the progressive die.

10.   (Original) The computerized method of Claim 9, further comprising:

determining, by the computer, a press force associated with each operation; and

determining, by the computer, a press force center for the progressive die based on the press force associated with each operation.

11.   (Original) The computerized method of Claim 9, further comprising:

notifying, via a visual display unit, a user of one or more results of the simulating step; and

receiving one or more modifications of at least one parameter of at least one operation.

12.   (Original) The computerized method of Claim 9, wherein determining, by the computer, one or more details of the strip for the blank layout comprises receiving, at the computer, a feed direction of the strip, a width of the strip, and a length of the strip based on the number of stations for the progressive die.

13.   (Original) The computerized method of Claim 9, wherein generating, by the computer, one or more outputs associated with the progressive die comprises generating a printout selected from the group consisting of at least one assembly drawing, a bill of material, and a hole table.

14.   (Original) A system for designing a progressive die used in the manufacturing of a part formed from sheet metal, comprising:

a computer-readable medium;

a computer program stored on the computer-readable medium operable to:

receive information regarding one or more features of the part;

determine a blank layout for the part based on the features of the part and the number of parts desired;

determine one or more details of a strip for the blank layout;

determine information regarding a die base based on the details of the strip, the die base having a plurality of die plates;

determine information regarding one or more inserts for the die plates based on one or more operations of one or more processes needed to form the features in the part; and

generate one or more outputs associated with the progressive die.

15.   (Original) The system of Claim 14, wherein the computer program is further operable to:

determine the one or more processes needed to form the features in the part;

determine the one or more operations associated with each process; and

receive one or more parameters associated with each operation.

16.   (Original) The system of Claim 14, wherein the computer program is further operable to:

receive information regarding one or more scrap profiles for the strip;

receive a sequence of the operations of the processes;

simulate the operations of each process on the strip;

notify, via a visual display unit, a user of one or more results of the simulating step; and

receive one or more modifications of at least one parameter of at least one operation.

17.   (Original) The system of Claim 14, wherein the computer program is further operable to:

receive one or more parameters associated with one or more configurable items for the die plates.

18.   (Original) The system of Claim 14, wherein the computer program is further operable to:

receive one or more parameters associated with the inserts;

determine one or more relief cavities for the die plates; and

generate one or more pockets for the die plates.

19.   (Original) The system of Claim 14, wherein the computer program is further operable to:

determine a press force associated with each operation; and

determine a press force center for the progressive die based on the press force associated with each operation.

20. (Original) The system of Claim 14, wherein the computer program is further operable to receive a feed direction of the strip, a width of the strip, and a length of the strip based on the number of stations for the progressive die.

21. (Original) The system of Claim 14, wherein the computer program is further operable to generate a printout selected from the group consisting of at least one assembly drawing, a bill of material, and a hole table.

22. (Original) A system for designing a progressive die used in the manufacturing of a part formed from sheet metal, comprising:

a computer-readable medium;

a computer program stored on the computer-readable medium operable to:

receive information regarding one or more features of the part;

determine one or more processes needed to form the features in the part;

determine one or more operations associated with each process;

receive one or more parameters associated with each operation;

determine a blank layout for the part based on the features of the part and the number of parts desired;

determine one or more details of a strip for the blank layout;

receive information regarding one or more scrap profiles for the strip;

receive a sequence of the operations of the processes;

simulate the operations of the processes on the strip;

determine information regarding a die base based on the details of the strip, the die base having a plurality of die plates;

receive one or more parameters associated with one or more configurable items for the die plates;

determine information regarding one or more inserts for the die plates based on the operations of the processes needed to form the features in the part;

receive one or more parameters associated with the inserts;

determine one or more relief cavities for the die plates;

generate one or more pockets for the die plates; and

generate one or more outputs associated with the progressive die.

23. (Original) The system of Claim 22, wherein the computer program is further operable to:

determine a press force associated with each operation; and

determine a press force center for the progressive die based on the press force associated with each operation.

24. (Original) The system of Claim 22, wherein the computer program is further operable to:

notify, via a visual display unit, a user of one or more results of the simulating step; and

receive one or more modifications of at least one parameter of at least one operation.

25. (Original) The system of Claim 22, wherein the computer program is further operable to receive a feed direction of the strip, a width of the strip, and a length of the strip based on the number of stations for the progressive die.

26. (Original) The system of Claim 22, wherein the computer program is further operable to generate a printout selected from the group consisting of at least one assembly drawing, a bill of material, and a hole table.